



ICRI Member's Report

MALDIVES

Reporting period December 2017 – November 2018

1. **Reporting on the ICRI Plan of Action 2016-2018.** *Your responses will help inform the Secretariat about members' contributions toward the previous Plan of Action.*

- a. **Please list any relevant examples from your organisation/country of investment/projects to protect and restore the natural infrastructure of reefs and mangroves.** (See Goal (1) 2 [ICRI Recommendation for supporting investments in the natural infrastructure of reefs and mangroves to increase climate resilience](#)).

Maldives Biosphere Project (implemented by Ministry of Environment and Energy): Riding on success of Baa Atoll as biosphere reserve, the project aims to establish the whole of the Maldives as a biosphere reserve. The work of the project is underway; potential core areas have been surveyed and reports compiled. Most of the core-areas identified are resort-house reefs which resorts themselves protect under purview of their lease agreement with the Ministry of Tourism. Effectively existing 120 tourist resorts in operation may be considered as a network of protected sites. These core-areas to be formally defined in the biosphere application dossier is like to represent a wide-array of marine habitats in the Maldives.

- b. **Has your organisation/country made any progress in the following areas to target anthropogenic pressures?** Please give detail below. Note: If no change since your last ICRI member report, please write 'no change'.

- Encourage ban of plastic microbeads in cosmetic products.** (See Goal (3) 2 & [See ICRI Recommendation to reduce plastic microbeads pollution in marine environment](#)):

There is a commercial aired on national television on micro plastics to raise awareness supported by UNDP and created by local NGOs.

- Improve regulation and enforcement to reduce direct anthropogenic damage due to dredging and physical alteration of reef structures.** (See Goal (3) 3 & [ICRI Recommendation to reduce damage due to dredging and dumping on coral reefs](#)):

The environment law had been strengthened to reduce damages from dredging and reclamation in the Maldives in 2017. EIA Regulation gives power to the EPA to fine damages caused by ship-grounding and the likes.

Deployment of mooring devices limiting the mechanical destruction of coral reefs and seagrasses. (See Goal (3) 4).

Mooring devices are to be installed in the newly declared MPA's in southern atolls and currently used in the Baa atoll biosphere reserve.

Environment Protection Agency of the Maldives with the help Reef –World Foundation had educated local dive centres from 2013 to 2018 on damages caused on using anchors while diving. While most of the diving in the Maldives is done without anchoring the boat few dives would be done by anchoring the boat. But with the help of [Reef-World Foundation](#) we are educating the dive centres to use mooring lines instead of anchoring.

- c. **Did your organisation/country celebrate International Year of the Reef?** Please give details below. (See Goal (5) 1 & [ICRI Recommendation designating 2018 as the third International Year of the Reef](#)):

Yes, Maldives celebrated IYOR 2018. Maldives Government dedicated the National Marine Science Symposium to the IYOR 2018. During the symposium an amateur photo competition was also launched to mark the IYOR 2018. Apart from this local schools were visited on a monthly basis under the IYOR-2018 programme to spread awareness on coral reefs to mark the IYOR 2018.

2. **Contribution to the ICRI Plan of Action 2018-2020 and upcoming ICRI general meetings.** *Your responses to the following questions will assist the Secretariat in assessing contributions towards the major themes of the draft ICRI Plan of Action 2018-2020.*

Theme 1 – Promote effective and adaptable solutions to improve the protection of coral reefs

- a. **Which of the below topics do you consider to be the three top challenges that your organisation faces in managing coral reefs?** Please select from the options below:

- Climate change impacts
- Inadequate planning, zoning and management
- Unsustainable resource extraction
- Tourism and recreation
- Shipping
- Coastal development
- Dredging
- Illegal and destructive fishing
- Fish and coral trade
- Marine debris
- Other. Please specify:

- b. **Please list any examples of innovative management practices that your organisation/country is involved in, such as use of VMS, drones & ecological mooring devices.** Include their limits, conditions of implementation, financing and an assessment of their results and links for more information if possible.

The Ministry of Fisheries and Agriculture (MoFA) is using VMS to monitor its tuna fishing fleet as part of the monitoring control and surveillance (MCS) program. Most of these vessels operate within 100 miles of the Maldivian EEZ. MoFA is in the process of upgrading the system to second-generation VMS technology with larger bandwidth and ability to integrate the connection with the internet. There are plans to integrate e-logbook App to this new VMS system for more efficient monitoring of the coastal fisheries.

The Marine Research and Higher Education Centre (of [Milano Bicocca, Italy, in the Maldives](#)) are making use of images taken by drones to estimate volume and type of plastics stranded the beaches. A preliminary result of assessment using algorithms developed for the purpose was presented at the second Maldives Marine Science Symposium. The project is currently purely academic and therefore with limited funding. However, the results are promising. Remote assessment of volume and types of plastics could be useful to prioritize cleaning operations and understand areas more likely to was marine debris and plastics ([link for Abstracts of the MMSS](#))

Drones are being used to monitor the Hanifaru bay in the Baa atoll Biosphere reserve. This site is monitored using drones daily during the Manta season for enforcement of regulations and to spread news on Manta ray and Whale shark citing to nearby dive centres and resorts. The use of drones to monitor Hanifaru Bay (core area of the Biosphere Reserve) is very successful since it cut down costs of physically going and monitoring the MPA. The limitation is the battery life of drones and the costs.

Marine Research Centre (MRC) is currently using Diver Propulsion Vehicles (DPV) to identify Grouper Aggregations sites in the Maldives. With the help of DPV large areas and channels between atolls are surveyed during aggregation periods. The DPV training was given to MRC staff for free by a local dive centre and they had given three scooters to do the surveys for free.

- c. **Please list any examples of innovative funding for management that your organisation/country is involved in.** Include their limits, conditions of implementation, financing and an assessment of their results and links for more information if possible.

Biosphere conservation funds: In the Baa atoll biosphere reserve the money earned from entry tickets to watch Manta rays and Whale sharks are being used for atoll development, research and conservation. For more information you can visit the biosphere official website; <http://www.broffice.gov.mv/en/>)

- d. **Please list any examples of leading practices, techniques and strategies for building reef resilience that your organisation/country is involved in.** Include

their limits, conditions of implementation, financing and an assessment of their results and links for more information if possible.

The government of the Maldives is trying to protect 10% of coral reefs by 2020. To achieve this goal this year total 4 coral reefs and 5 Mangrove forests had been protected in 2018.

- 1- Rasdhoo Madivaru Rasdhoo atoll- The core area is 266.08 hectares
- 2- Manta point Addu atoll-170 hectares
- 3- British Loyalty Wreck and the reef surrounding it- 13 hectares
- 4- Dhigulaibadhoo Magrove forest- 43 hectares
- 5- Farukolhu Magrove forest- 172.74 hectares
- 6- Kottey area Addu atoll, three separate Mangrove forests and one coral reef - 194 hectares

The islands developed as tourist resorts works as semi managed area where fishing and extraction of any benthic life form and fishing is prohibited. There are over hundred resorts or islands in the Maldives acting as semi protected areas.

- e. **Please list any examples of leading practice reef restoration mechanisms that your organisation/country is involved in.** Include their limits, conditions of implementation, financing and an assessment of their results and links for more information if possible.

In a wide scale tourist resorts in the Maldives are implementing coral restoration activities as an eco-tourism concept. Some resort developers are also using reef restoration and replantation following the resort development phase if there had been significant loss in coral cover during construction. To start a coral restoration project a permit is needed from Environment Protection Agency (EPA) of the Maldives and an environment impact assessment had to be done in order to get the permit.

Theme 3 – Support communities reliant on coral reefs

- f. **Is sustainable tourism development a significant challenge for your organisation?** If so please include detail below of the kinds of challenges faced and your strategies to deal with them.

Sustainable tourism is not a significant challenge in the Maldives. Unlike in other countries most tourist hotels (resorts) are fully self-contained islands providing entire range of services from within the island itself; power generation and water production, sewage / waste treatment and M&E. As such resort has full control how they make use of the surrounding marine environment. Under their lease agreement resorts have full jurisdiction on how they manage the house reef (800 m from the shoreline and/or the entire house reef). A challenge in the Maldives is lack of streamlined regulatory and enforcement framework.

- g. **Is your organisation involved in activities to raise awareness and encourage action to support communities reliant on coral reefs?** Please include details below.

- h. Yes, the Marine Research Centre and the Ministry of Fisheries and Agriculture are involved in a nation-wide coral reef awareness building effort spear-headed by the Ministry of Education. The Marine Research Centre is also engaged with the schools and public on *ad-hoc* basis in building awareness. IYOR2018 is being marked in the Maldives.
- i. .

Theme 4 – Help to reduce anthropogenic threats to coral reefs, particularly those that occur at a global or regional scale

- j. **What activities is your organisation involved in to elevate awareness of the global nature of the threat of climate change to coral reefs?** Please include details below

The Marine Symposium organized and the Marine Research Centre (MRC) every two years creates a platform to share scientific studies on coral reefs and the marine environment.

- k. **Has your organisation made any progress in dealing with destructive fishing and trade?** Please include details below.

The major fishing practices in the Maldives are non-destructive methods. It is illegal to use fishing nets, any type of chemicals, spearfishing and using any types of explosives to fish in the Maldives. It is illegal to export or import most of the marine species protected in the International laws. Currently our organization is trying to establish a management plan for reef fishery and aquarium fishery in the Maldives to reduce the impacts of unsustainable resource extractions.

- l. **Has your organisation made any progress in dealing with marine debris?** Please include details below.

The Ministry of Fisheries and Agriculture signed a Memorandum of Understanding with the [Parley Maldives](#) – an NGO based in the Maldives who deals with single-use-plastic. They are encourage plastics used by fishermen in the Maldives are collected and disposed (recycled) adequately. We are making progress in this.

- 3. **Would you like to report on your activities during the ICRI GM?** Please give details below.

YES

- 4. **International events.** Please list any upcoming international events relevant to ICRI which someone from your organisation plans to attend in 2018-2019.

ICRI GM, Monaco, 5-7 Dec 2018

Conference of the Parties to the United Nations Framework Convention on Climate Change, 3-14 Dec 2018

Reef Futures 2018: A Coral Restoration and Intervention-Science Symposium, Florida, 10-14 Dec 2018

Global World Heritage Marine Managers meeting, Alaska, US, 26-31 May 2019

Other:

5. **Publications.** Please list relevant publications and reports you have released during this reporting period.

6.

1- What you do for small islands, you do for the world 2015-2018/
Ministry of Environment and Energy

2- Communication Strategy and Action Plan 2019-2023 / Ministry of
Environment and Energy

3- Environment and Social Assessment Management Framework 2018 /
Ministry of Environment and Energy

4- **ICRI Member Feedback.** What do you find most valuable about the ICRI member reports? If you have any ideas for improvement please list below:

The fact that different countries with different development levels addressing the same issues we face in managing the coral reefs is quiet interesting. Hence sometimes we see that developed countries having the same issue as the developing countries. I think we need to create an online platform where we can share information more frequently than once a year (something like the resilience.org)

5- **General Information.** (Note that this information will be posted on the ICRI website on your member page: <http://www.icriforum.org/about-icri/members-networks>.)

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